

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Please cancel claims 1-67 and add new claims 68-85 as follows:

Claims 1-67 (cancelled).

68. (new) A method for treating or inhibiting a disease of an animal, said disease caused by a microorganism, comprising administering to said animal an effective amount of an antimicrobial preparation comprising a substantially pure culture or suspension of *Burkholderia casidae* or variant thereof, a cell-free filtrate or cell fraction prepared from a substantially pure culture or suspension of *Burkholderia casidae* or variant thereof, or a cell-free filtrate or cell fraction prepared from an inactivated substantially pure culture or suspension of *Burkholderia casidae* or variant thereof, which antimicrobial preparation exhibits antimicrobial activity against the microorganism, and the *Burkholderia casidae* or variant has

- a) a 16S rRNA gene comprising a sequence that is at least 97% similar to the sequence of SEQ ID NO:1 as determined by Clustal Analysis; and
- b) a cellular fatty acid composition comprising about 16% to about 20% C16:0 fatty acid, about 18% to about 22% C16:1 fatty acid, and about 35% to about 45% C18:1 (11, 12) fatty acid,

and wherein the microorganism is a bacterium, yeast, fungus, protozoan or alga.

69. (new) The method of claim 68, wherein the animal is human.

70. (new) The method of claim 68, wherein the bacterium is *Agromyces*, *Arthrobacter*, *Micrococcus luteus*, *Mycobacterium*, *Nocardia*, *Staphylococcus aureus* or *Streptomyces*.

71. (new) The method of claim 68, wherein the yeast is *Saccharomyces cerevisiae*, *Candida albicans* or *Cryptococcus neoformans*.

72. (new) The method of claim 68, wherein the fungus is *Agaricus*, *Alternaria*, *Aspergillus niger*, *Botrytis cinerea*, *Candida*, *Cercospora*, *Cercosporidium*, *Cryptococcus*, *Geotrichum*, *Mycosphaerella*, *Mucor*, *Penicillium*, *Phoma*, *Phytophthora*, *Plasmopora*,

Pseudopeziza, Puccinia, Pythium, Rhizoctonia, Rhizopus, Saccharomyces, Septoria nodorum, Sporothrix, Stemphylium, Trichophyton or Verticillium.

73. (new) The method of claim 68, wherein the alga is *Anabena*.

74. (new) The method of claim 68, wherein the *Burkholderia casidae* or variant has a 16S rRNA gene comprising a sequence identical to the sequence of SEQ ID NO:1 as determined by Clustal Analysis; and a cellular fatty acid composition comprising about 18% C16:0 fatty acid, about 21% C16:1 fatty acid, and about 39% C18:1 (11, 12) fatty acid.

75. (new) The method of claim 68, wherein the *Burkholderia casidae* is strain 2.2N having the accession number ATCC 55961, or a variant thereof.

76. (new) The method of claim 68, wherein the substantially pure culture or suspension of *Burkholderia casidae* or variant thereof comprises at least 80% cysts.

77. (new) The method of claim 68, wherein the substantially pure culture or suspension of *Burkholderia casidae* or variant thereof comprises at least 80% cells.

78. (new) The method of claim 68, wherein the substantially pure culture or suspension of *Burkholderia casidae* or variant thereof has been inactivated.

79. (new) The method of claim 68, wherein the substantially pure culture or suspension of *Burkholderia casidae* or variant thereof has been inactivated by treating with heat or alcohol.

80. (new) The method of claim 68, wherein the substantially pure culture or suspension of *Burkholderia casidae* or variant thereof comprises sprayed-dried or freeze-dried cells.

81. (new) The method of claim 68, wherein the cell-free filtrate or cell fraction is extracted by alcohol.

82. (new) The method of claim 81, wherein the alcohol-extracted cell-free filtrate or cell fraction is prepared by a method comprising:

- a) boiling an alcoholic mixture comprising a cell, a culture, a suspension, a cell-free filtrate or a cell fraction of *Burkholderia casidae* and an alcohol;
- b) clarifying the boiled mixture;

- c) mixing the boiled mixture with magnesium silicate;
- d) collecting the magnesium silicate;
- e) washing the magnesium silicate with water; and
- f) eluting antifungal compounds from the magnesium silicate with an alcoholic solution, thereby producing the alcohol-extract.

83. (new) A method for treating or inhibiting a disease of an animal, said disease caused by a microorganism, comprising administering to said animal an effective amount of an antimicrobial preparation from *Burkholderia casidae* or variant thereof, which antimicrobial preparation exhibits antimicrobial activity against the microorganism and is produced by a method comprising:

- a) growing cells of *Burkholderia casidae* or variant in a Tryptic Soy Broth with sucrose (TSM+S) medium;
- b) separating the medium from the cells;
- c) filter-sterilizing the cell-free medium; and
- d) mixing the filter-sterilized medium with a carrier,

wherein the microorganism is a bacterium, yeast, fungi, protozoan or algae.

84. (new) A method for treating or inhibiting a disease of an animal, said disease caused by a microorganism, comprising administering to said animal an effective amount of an antimicrobial preparation from *Burkholderia casidae* or variant thereof, which antimicrobial preparation exhibits antimicrobial activity against the microorganism and is produced by a method comprising:

- a) growing cells of *Burkholderia casidae* or variant in a Tryptic Soy Broth with sucrose (TSM+S) medium;
- b) separating the medium from the cells;
- c) spray-drying the cells; and
- d) mixing the dried cell material with a carrier,

wherein the microorganism is a bacterium, yeast, fungi, protozoan or algae.

85. (new) A method for treating or inhibiting a disease of an animal, said disease caused by a microorganism, comprising administering to said animal an effective amount of an antimicrobial preparation from *Burkholderia casidae* or variant thereof, which antimicrobial preparation exhibits antimicrobial activity against the microorganism and is produced by a method comprising:

- a) growing cells of *Burkholderia casidae* or variant in a Tryptic Soy Broth with sucrose (TSM+S) medium;
  - b) separating the medium from the cells;
  - c) filter-sterilizing the cell-free medium;
  - d) extracting antimicrobial compounds from the filtered-sterilized medium
  - e) using organic or alcoholic solvents; and
  - f) mixing the cell-free medium with a carrier,
- wherein the microorganism is a bacterium, yeast, fungus, protozoan or alga.